

# GRID CODE MODIFICATION GC0148

## LEGAL TEXT

### CRITICAL TOOLS AND FACILITIES AND GOVERNANCE OF THE SYSTEM DEFECNE PLAN, SYSTEM RESTORATION PLAN AND TEST PLAN

#### RELEVANT GRID CODE EXTRACTS

#### Extracts from Glossary and Definitions

<p><b><u>Critical Tools and Facilities</u></b></p>	<p><b><u>Apparatus</u></b> and tools required in relation to <b>Black Start</b>:</p> <p>In the case of <b>The Company</b> include, but are not limited to,:-</p> <ul style="list-style-type: none"> <li>i) Tools for operating and monitoring the <b>Transmission System</b> including but not limited to state estimation, the <b>Balancing Mechanism</b>, load and <b>System Frequency</b> control, alarms, real time system operation and operational security analysis including off line transmission analysis.</li> <li>ii) The ability to control, protect and monitor transmission assets including switchgear, tap changers and other <b>Transmission System</b> equipment including where available auxiliary equipment and to ensure the safe operation of <b>Plant</b> and <b>Apparatus</b> and the safety of personnel.</li> <li>iii) <b>Control Telephony</b> systems as provided for in CC.6.5.1 – CC.6.5.5 and ECC.6.5.1 – ECC.6.5.5.</li> <li>iv) Operational telephony as provided for in STCP 04-5.</li> <li>v) Tools and communications systems to facilitate cross border operations.</li> </ul> <p>In the case of <b>Generators</b> and <b>HVDC System Owners</b> and <b>DC Converter Station Owners</b></p> <ul style="list-style-type: none"> <li>i) Tools for monitoring their <b>Plant</b> and <b>Apparatus</b>.</li> <li>ii) The ability to control, protect and monitor their <b>Plant</b> and <b>Apparatus</b> including as applicable primary <b>Plant</b>, switchgear, tap changers and other auxiliary equipment and to ensure the safe operation of <b>Plant</b> and personnel.</li> <li>iii) <b>Control Telephony</b> as provided for in CC.6.5.1 – CC.6.5.5 and ECC.6.5.1 – ECC.6.5.5.</li> </ul> <p>In the case of <b>Network Operators</b></p> <ul style="list-style-type: none"> <li>i) Control room <b>Apparatus</b> and tools for monitoring their <b>System</b> including but not limited to, alarms, real time system operation and operational security analysis including off line network analysis.</li> <li>ii) The ability to control, protect and monitor those assets necessary for <b>Black Start</b> including switchgear, tap changers and other network equipment including where available auxiliary equipment and to ensure the safe operation of <b>Plant</b> and personnel.</li> <li>iii) <b>Control Telephony</b> as provided for in CC.6.5.1 – CC.6.5.5 and ECC.6.5.1 – ECC.6.5.5.</li> </ul> <p>In the case of <b>Non-Embedded Customers</b></p> <ul style="list-style-type: none"> <li>i) Tools for monitoring their <b>System</b> including but not limited to, alarms and real time system operation.</li> </ul>
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	<p>ii) <u>The ability to control, protect and monitor assets including switchgear, tap changers and other network equipment including where available auxiliary equipment and to ensure the safe operation of <b>Plant</b> and personnel.</u></p> <p><u><b>Control Telephony</b> as provided for in CC.6.5.1 – CC.6.5.5 and ECC.6.5.1 – ECC.6.5.5.</u></p>
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### **Extracts from General Conditions**

~~GC.16 – Not used~~

GC.16 SYSTEM DEFENCE PLAN, SYSTEM RESTORATION AND TEST PLAN

GC.16.1 In relation to the **System Defence Plan, System Restoration Plan** and **Test Plan** the following provisions shall apply.

GC.16.2 If a **User** or **The Company**, wishes to raise a change to the **System Defence Plan, System Restoration Plan** or **Test Plan** it shall notify the **Panel Secretary** of the wish to so change the **System Defence Plan, System Restoration Plan** or **Test Plan**.

In respect of the **System Defence Plan** the proposal shall not change the characteristics of the **Defence Service** to be provided or the possibility of and conditions for aggregation. That notification must contain details of the proposal, including an explanation of why the proposal is being made.

In respect of the **System Restoration Plan**, the proposal shall not change the characteristics of the **Restoration Service** to be provided or the possibility of and conditions for aggregation or the target geographical distribution of power sources with **Black Start** and island operation capabilities. That notification must contain details of the proposal, including an explanation of why the proposal is being made.

Any such change proposals shall take into account the legitimate expectations, where necessary, of **User's, Defence Service Providers** or **Restoration Service Providers** based on the initially specified or agreed requirements or methodologies.

GC.16.3 Ordinary Procedure

(a) Unless it is identified as an urgent proposal (in which case GC.16.4 applies) or unless the notifier requests that it be tabled at the next **Panel** meeting, as soon as reasonably practicable following receipt of the notification, the **Panel Secretary** shall forward the proposal, with a covering paper, to **Panel Members** and publish it on **The Company's Website** and inform **Users** and other persons who may be interested.

(b) If no objections are raised by **Panel Members** within 20 **Business Days** of the date of the proposal, then it shall be deemed approved, and **The Company** shall make the change to the **System Defence Plan** or the **System Restoration Plan**, and the **Panel Secretary** shall as soon as reasonably possible, publish it on **The Company's Website** and inform **Users** and other persons who may be interested.

(c) If there is an objection (or if the notifier had requested that it be tabled at the next **Panel** meeting rather than being dealt with in writing), then the proposal to change the **System Defence Plan** or **System Restoration Plan** will be included in the agenda for the next **Panel** meeting.

(d) If there is a majority consensus at the **Panel** meeting in favour of the proposal, **The Company** will make the change to the **System Defence Plan** or the **System Restoration Plan** and the **Panel Secretary** shall publish it on **The Company's Website** and inform **Users** and other persons who may be interested.

- (e) If there is no such majority consensus, including where the **Panel** believes that a consultation is needed, **The Company** will establish a **Panel** working group if this was thought appropriate by a majority of the **Panel** or the **Authority** and in any event **The Company** shall undertake a consultation of **Authorised Electricity Operators**.
- (f) Following such consultation, **The Company** will report back to **Panel Members**, either in writing or at a **Panel** meeting. If there was broad consensus in the consultation response, then **The Company** will make the change to the **System Defence Plan** or the **System Restoration Plan**.
- (g) In the case of a proposal to change the **Test Plan** a consultation of not less than one month shall be undertaken without exception followed by determination by the **Authority**.
- (h) Where following consultation, there is no broad consensus in the case of the **System Defence Plan** or the **System Restoration Plan**, and in all cases with changes to the **Test Plan**, the matter will be referred to the **Authority** who will decide whether the proposal should be implemented and will notify **The Company** of its decision (a copy of which the **Panel Secretary** shall place on **The Company's Website**). If the decision is to so implement the change, **The Company** will make the change to the **System Defence Plan**, **System Restoration Plan** or **Test Plan**.

#### GC.16.4 Urgent Procedure

- (a) If the notification to change the **System Defence Plan** or **System Restoration Plan** is marked as an urgent proposal, the **Panel Secretary** will contact **Panel Members** in writing to see whether a majority who are contactable agree that it is urgent and in that case the **Panel Secretary** shall propose a timetable and procedure which shall be followed. The **Panel Secretary** shall as quickly as reasonably possible, publish it on **The Company's Website** and inform **User's** and other persons who may be interested
- (b) If **Panel Members** do so agree, then the **Panel Secretary** will initiate the procedure accordingly, having first obtained the approval of the **Authority** that urgency is warranted in accordance with the criteria set out in the **Authority's** published guidance.
- (c) If such members do not so agree, or if the **Authority** declines to approve the proposal being treated as an urgent one, the proposal will follow the ordinary procedure as set out in GC.16.3 above.
- (d) If a proposal to change the **System Defence Plan** or **System Restoration Plan** is developed using the urgent procedure, **The Company** will contact all **Panel Members** after it is agreed as being urgent to check whether they wish to discuss further the proposal to see whether an additional proposal should be considered to alter the implementation, such proposal following the ordinary procedure as provided for in GC.16.3 or, if agreed by **The Authority**, urgency as provided for in GC16.4.

#### **Extracts from Connection Conditions**

**CC.7.9 GB Generators, DC Converter Station owners and BM Participants shall provide a Control Point.**

- a) In the case of **GB Generators** and **DC Converter Station** owners, for each **Power Station** or **DC Converter Station** directly connected to the **National Electricity Transmission System** and for each **Embedded Large Power Station** or **Embedded DC Converter Station**, the **Control Point** shall receive and act upon instructions pursuant to OC7 and BC2 at all times that **Generating Units** or **Power Park Modules** at the **Power Station** are generating or available to generate or **DC Converters** at the **DC Converter Station** are importing or exporting or available to do so. In the case of all **BM Participants**, the **Control Point** shall be continuously manned except where the **Bilateral Agreement** specifies that compliance with BC2 is not required, in which case the **Control Point** shall be manned between the hours of 0800 and 1800 each day.
- b) In the case of **BM Participants**, the **BM Participant's Control Point** shall be capable of receiving and acting upon instructions from **The Company**.

**The Company** will normally issue instructions via automatic logging devices in accordance with the requirements of CC.6.5.8(b).

Where the **BM Participant's Plant** and **Apparatus** does not respond to an instruction from **The Company** via automatic logging devices, or where it is not possible for **The Company** to issue the instruction via automatic logging devices, **The Company** shall issue the instruction by telephone.

In the case of **BM Participants** who own and/or operate a **Power Station** or **DC Converter Station** with an aggregated **Registered Capacity** or **BM Participants** with **BM Units** with an aggregated **Demand Capacity** per **Control Point** of less than 50MW, or, where a site is not part of a Virtual Lead Party as defined in the **BSC**, a **Registered Capacity** or **Demand Capacity** per site of less than 10MW:

- a) where this situation arises, a representative of the **BM Participant** is required to be available to respond to instructions from **The Company** via the **Control Telephony** or **System Telephony** system, as provided for in CC.6.5.4, between the hours of 0800-1800 each day.
- b) Outside the hours of 0800-1800 each day, the requirements of BC2.9.7 shall apply.

For the avoidance of doubt, **BM Participants** who are unable to provide **Control Telephony** and do not have a continuously manned **Control Point** may be unable to act as a **Defence Service Provider** and shall be unable to act as a **Restoration Service Provider** or **Black Start Service Provider** where these require **Control Telephony** or a **Control Point** in respect of the specification of any such services falling into these categories.

#### CC.7.10 Obligations on Users in respect of Critical Tools and Facilities

CC.7.10.1 In addition to the requirements of CC.6.5.1 – CC.6.5.5 and CC.6.5.8(b), **The Company**, each **GB Code User** and **Restoration Service Provider** shall ensure they have the appropriate **Critical Tools and Facilities** necessary to control their assets for **Black Start**, from their **Control Point** or **Control Centre** as appropriate for a minimum period of [24] hours (or such longer period as agreed between the **User** and/or **Restoration Service Provider** and **The Company**) following a **Total Shutdown** or **Partial Shutdown**.

CC.7.10.2 In satisfying this requirement, **The Company** and **GB Code Users** in respect of their **Critical Tools and Facilities** shall ensure as far as reasonably practical that they have adequate control equipment redundancy in place so that in the event of a failure of one or more components of the control system its function is unimpaired.

CC.7.10.3 Each **GB Code User** and **Restoration Service Provider** will report on the results of their management and testing for their **Critical Tools and Facilities** on request by **The Company**.

## ***Extracts from European Connection Conditions***

**ECC.7.9 Generators, HVDC System owners and BM Participants shall provide a Control Point.**

- a) In the case of **EU Generators** and **HVDC System** owners, for each **Power Station** or **HVDC System** directly connected to the **National Electricity Transmission System** and for each **Embedded Large Power Station** or **Embedded HVDC System**, the **Control Point** shall receive and act upon instructions pursuant to OC7 and BC2 at all times that **Power Generating Modules** at the **Power Station** are generating or available to generate or **HVDC Systems** are importing or exporting or available to do so. In the case of all **BM Participants**, the **Control Point** shall be continuously manned except where the **Bilateral Agreement** specifies that compliance with BC2 is not required, in which case the **Control Point** shall be manned between the hours of 0800 and 1800 each day.
- b) In the case of **BM Participants**, the **BM Participant's Control Point** shall be capable of receiving and acting upon instructions from **The Company**.

**The Company** will normally issue instructions via automatic logging devices in accordance with the requirements of ECC.6.5.8(b).

Where the **BM Participant's Plant and Apparatus** does not respond to an instruction from **The Company** via automatic logging devices, or where it is not possible for **The Company** to issue the instruction via automatic logging devices, **The Company** shall issue the instruction by telephone.

In the case of **BM Participants** who own and/or operate a **Power Station** or **HVDC System** with an aggregated **Registered Capacity** or **BM Participants** with **BM Units** with an aggregated **Demand Capacity** per **Control Point** of less than 50MW, or, where a site is not part of a Virtual Lead Party as defined in the **BSC**, a **Registered Capacity** or **Demand Capacity** per site of less than 10MW

- a) where this situation arises, a representative of the **BM Participant** is required to be available to respond to instructions from **The Company** via the **Control Telephony** or **System Telephony** system, as provided for in ECC.6.5.4, between the hours of 0800-1800 each day.
- b) Outside the hours of 0800-1800 each day, the requirements of BC2.9.7 shall apply.

For the avoidance of doubt, **BM Participants** who are unable to provide **Control Telephony** and do not have a continuously manned **Control Point** may be unable to act as a **Defence Service Provider** and shall be unable to act as a **Restoration Service Provider** or **Black Start Service Provider** where these require **Control Telephony** or a **Control Point** in respect of the specification of any such services falling into these categories.

**ECC.7.10 Obligations on Users in respect of Critical Tools and Facilities**

**ECC.7.10.1** In addition to the requirements of ECC.6.5.1 – ECC.6.5.5 and ECC.6.5.8(b), **The Company**, each **EU Code User** and **Restoration Service Provider** shall ensure they have the appropriate **Critical Tools and Facilities**, necessary to control their assets for **Black Start**, from their **Control Point** or **Control Centre**, as appropriate, for a minimum period of [24] hours (or such longer period as agreed between the **User** and/or **Restoration Service Provider** and **The Company**) following a **Total Shutdown** or **Partial Shutdown**.

**ECC.7.10.2** In satisfying this requirement, **The Company** and **EU Code User's** in respect of their **Critical Tools and Facilities** shall ensure as far as reasonably practical that they have adequate control equipment redundancy in place so that in the event of a failure of one or more components of the control system its function is unimpaired.

**ECC.7.10.3** Each **EU Code User** and **Restoration Service Provider** will report on the results of their

management and testing for their **Critical Tools and Facilities** on request from **The Company**.